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(54) Improved catalyst compositions and methods of making same.

(57) A method of making a catalyst composition comprising an activated alumina coating stabilized against thermal degradation includes applying a coating of alumina having one or more platinum group metal catalytic components dispersed thereon onto a carrier substrate and calcining the coating. The calcined coating is then impregnated with a solution of a thermal stabilizer-precursor and calcined again to provide a thermal stabilizer in the alumina. Bulk ceria, optionally an aluminum-stabilized bulk ceria, may also be added to the composition, preferably at specified minimum levels, including a high purity bulk ceria on which one or more non-rhodium platinum group metal catalytic components, e.g., platinum, optionally, are dispersed. A separate aspect of the invention provides for a method of making a catalyst composition including dispersing one or more platinum group metal catalytic components on an activated alumina and calcining the combined alumina and platinum group metal catalytic components. The steps are carried out under limited acidification conditions whereby at least minimum dispersions of the platinum group metal catalytic components are attained. The invention also

provides for catalyst compositions resulting from either or both the foregoing methods.



